

**ENVIRONMENTAL  
ANALYSIS  
INC.**

EPA Region 5 Records Ctr.



382854

October 5, 1982

Mr. Bill Sprout  
USEPA Office of Solid Waste  
401 M. Street S. W.  
Mail Stop W H 565 B  
Washington D. C. 20460

Dear Mr. Sprout:

This letter is in reference to the tests performed on samples submitted to Environmental Analysis, Inc. by Olin Corporation, Brass Division, E & E Engineering Dept., East Alton Illinois.

The water samples identified as "N & E Effluents" on our reports #7380, 3-2-81; #7414, 3-11-81; #7415, 3-11-81; #7416, 3-11-81 and #7417, 3-11-81; were tested for "Soluble Cyanide" content. The test for "Soluble Cyanide" on the water samples was performed by filtering the samples thru a 0.45 micron membrane filter and determining the cyanide content of the filtrate by the colorimetric test in Standard Methods for the Examination of Water and Wastewater, 14th Edition, 1975, paragraph 413.D, page 370.

The solid waste sample identified as "Zone 6 Emergency Holding Lagoon Sludge" on our report #8166 dated 8-10-81 was tested for "Soluble Cyanide" content. The test for "Soluble Cyanide" was performed in accordance with the procedure in Standard Methods for the Examination of Water and Wastewater, 14th Edition, 1975, paragraphs 413.2.a Cyanide in Solid Waste and the Colorimetric Method 413.D. One gram of the sludge sample was used for the extraction with 1000 ml. of deionized water. The insoluble solids were removed by filtration thru a 0.45 micron membrane filter prior to analysis of the filtered extract.

The solid wastes identified as "Zone 6 WWTF, Emergency Holding Lagoon" numbered 1 thru 4 on our report #9331 dated 3-31-82 was tested for "Free Cyanide" content. The test for "Free Cyanide" was performed by stirring 100 grams of the sample with 1600 ml. of deionized water for 24 hours, then removing the insoluble solids by filtering thru a 0.45 micron membrane filter, adjusting the volume of the filtrate to 2000 ml. with deionized water and determining the cyanide content by the method in Standard Methods for the Examination of Water and Wastewater, 15th edition, 1980, paragraph 412.D., page 320.

The water sample identified as "N & E Basin Effluent (24 hour composite)" on our report #9140 dated 3-1-82 was tested for "Free Cyanide" content. The test for "Free Cyanide" was performed by filtering the water sample thru a

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0.45 micron membrane filter and determining the cyanide content of the filtrate by the Colorimetric Method of Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, paragraph 412.D. This method is the same as the method used for "Soluble Cyanide" on our earlier reports on the water samples. These procedures, for the water samples, report the concentration of the cyanide found in the filtered sample.

The results of the samples which were sludges, are reported as the concentration of cyanide found in the filtered extract.

Respectfully submitted,



R. M. Ferris  
Director, EAI